

What Is Claimed Is:

Sub P1

1. An apparatus for trimming scrap from a blank comprising:
 - a steady blade;
 - a clamping pad securing the blank to said
 - 5 steady blade;
 - a moving blade movable past said steady blade for trimming the blank;
 - a radius formed on the leading edge of said moving blade adapted to reduce defects in the blank
 - 10 associated with the trimming process; and
 - a support element in communication with the scrap and adapted to reduce defects in the blank associated with the trimming process.
2. An apparatus as described in claim 1
- 15 wherein said support element reduces bending in the scrap.
3. An apparatus as described in claim 1, wherein said support element maintains the scrap substantially parallel to its original orientation.
- 20 4. An apparatus as described in claim 1, wherein said support element comprises:
 - a plate; and
 - an elastic pad.
5. An apparatus as described in claim 1,
- 25 wherein said support element comprises:
 - a plate; and
 - a hydraulic cylinder.
6. An apparatus as described in claim 1, wherein said support element comprises:
 - 30 a plate; and
 - a spring element.

~~Sub 12~~

7. An apparatus as described in claim 1 for use with aluminum alloy blanks.

8. An apparatus as described in claim 1 for use in an automated stamping apparatus.

9. An apparatus for trimming scrap from a metal blank comprising:

a steady blade;

a clamping pad for securing the blank to said steady blade; and

a moving blade movable past said steady blade for trimming the blank; and

a radius formed on the leading edge of said moving blade adapted to reduce defects in the blank associated with the trimming process.

10. An apparatus as described in claim 9 for use with aluminum alloy blanks.

11. An apparatus as described in claim 9 for use in an automated stamping process.

~~Sub 12~~

12. A method of reducing the production of defects during trimming operations comprising:

holding a blank between a steady blade and a clamping pad;

moving a moving blade past said steady blade to trim scrap off of said blank; and

supporting said scrap to reduce defects in said blank associated with the trimming process.

13. A method as described in claim 12 wherein said supporting said scrap comprises: preventing bending in said scrap during the trimming process.

14. A method as described in claim 13 wherein said supporting said scrap comprises:

keeping said scrap substantially parallel to said scrap's original orientation during the trimming process.

15 15. A method as described in claim 12 further comprising:

reducing the strain concentration caused by said moving blade on said blank through the use of a radius formed on the leading edge of said moving blade.

10 16. A method of reducing the production of defects during trimming operations comprising:

holding a blank between a steady blade and a clamping pad;

moving a moving blade past said steady blade to trim scrap off of said blank; and

15 reducing the strain concentration caused by said moving blade on said blank through the use of a radius formed on the leading edge of said moving blade.